KOLOMOYTSEVA, I.P., MAKHON'KOVA, A.G., (Moskva)

Neural affections in leukemia. Klin.med. 36 no.9:67-71 S'58
(MIRA 11:10)

1. Iz kliniki nervnykh bolezney (zav. prof. Ye.K. Sepp [deceased]) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

(BRAIN, pathol.
in leukemia (Rus))
(LEUKEMIA, pathol.
brain (Rus))

AKSYANTSEV, M.A., KOLOMOYTSEVA, I.P. (Moskva)

Clinical picture and treatment of diseases of the subthalamic region.
Klin.med. 36 no.9:87-93 S'58 (MIRA 11:10)

1. Iz kliniki nervnykh bolezney (zav. kafedroy - deystvitel'nyy chlen AMN SSSR prof. Ye.K. Sepp [deceased]) I Moskovskogo ordena Lenina meditsinskogo instituta.
(DIENCEPHALON, dis.
subthalamus, clin., picture & ther. (Rus))

KOLOMOYTSEVA, I.P.; POKROVSKIY, V.I.

Use of large antibiotic doses in treating cute purulent diseases of the nervous system. Trudy 1-go MMI 24:297-303 '63
(MIRA 17:3)

AKSYANTSEV, M.A.; KOLOMOYTSEVA, I.P.

Aminazine in neurological practice. Trudy 1-go MMI 24:287-296'63
(MIRA 17:3)

KOLOMIYTSEVA, Marta Grigor'yevna; NEYMARK, Izrail' Isayevich; KHAMIDULLIN, R.S., red.

[Goiter and its prevention] Zob i ego profilaktika. Moskva, Medgiz, 1963. 298 p. (MIRA 17:5)

SARKISOV, V.A., inzh.; KOLOMURDI, N.V., inzh.; VERBATO, G.V., inzh.

Laying strings of rails without joints in the construction of second tracks. Transp. stroi. 14 no.3:3-7 Mr '64. (MIRA 17:6)

89086
Z/026/60/005/001/003/005
B112/B202

16.7600
AUTHOR: Kolomý, Josef

TITLE: Application of the Galerkin method to problems on the steady flow of a viscous fluid

PERIODICAL: Aplikace Matematiky, v. 5, no. 1, 1960, 40-44

TEXT: The problem of the steadiness of a plane flow of a viscous fluid between two rotating cylinders leads to the following boundary problem:

$$-(D^2-\sigma)^3 v(x) + \mu p(x)\, v(x) = 0$$

with the boundary conditions:

$$v(a) = v(b) = 0,$$

$$(D^2-\sigma)\, v(a) = (D^2-\sigma)\, v(b) = 0,$$

$$D(D^2-\sigma)\, v(a) = D(D^2-\sigma)\, v(b) = 0,$$

where $D = d/dx$, $\sigma > 0$, x is from the closed interval $\langle a,b\rangle$ and $p(x)$ from the domain $L_2(a,b)$ which is in the interval (a,b) of functions quadratically integrable according to Lebesgue. The author gives the proof of

Card 1/2

Application of the Galerkin...

convergence for the Galerkin method of calculating the eigenvalues of this boundary problem. For this purpose it is sufficient, according to the theorems by S. G. Mikhlin, that the operator $(D^2-\sigma)^3$ is self-adjoint and positively definite in the interval $\langle a,b\rangle$ concerned, and that the operator $(D^2-\sigma)^{-3}p(\ )$ is totally continuous over $\langle a,b\rangle$. The first property is proved by demonstrating that $((D^2-\sigma)^3 v, v) \geq \sigma^3 \|v\|^2$; the second one is proved by studying the Green functions belonging to the operator $(D^2-\sigma)^{-3}$. In this connection, the author refers to the book: "Diferenciální počet" by Jarník. There are 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Matematicko-fysikálni fakulta Karlovy university, Praha (Division of Mathematics and Physics of Charles University, Prague)

SUBMITTED: September 26, 1958

23912
Z/026/60/005/004/003/004
D231/D304

16.3900 16.4600

AUTHOR: Kolomý, Josef

TITLE: A approximate solution of a functional equation-system by Galerkin's method

PERIODICAL: Aplikace matematiky, v. 5, no. 4, 1960, 296 - 303

TEXT: The article gives the conditions under which Galerkin's method can be applied. Galerkin's method is formulated by S.G. Mikhlin (Ref. 1: Variatsionnyye metody v matematicheskoy fizike (Variation Methods in Mathematical Physics), 1957) and (Ref. 2: Pryamyye metody v matematicheskoy fizike (Direct Methods in Mathematical Physics), 1950). The analogues of Mikhlin's theorem are: The given system

$$Au_1 + Ku_2 = f_1, \qquad Bu_2 + Lu_1 = f_2, \tag{1}$$

is to have only one solution in the Hilbert space $H_o = H_A \times H_B$ and for the operator $T_u = \{T_2u_2, T_1u_1\}$ with $T_2 = A^{-1}K$, $T_1 = B^{-1}L$ to be

Card 1/4

A approximate solution ...

completely continuous in H_0; then Galerkin's solutions of the system (1) above are convergent in the norm of the space H_0, to the exact solutions of the system (1). Let $Tu = \{T_2u_2, T_1u_1\}$ be a completely continuous operator in the space H_0; then Galerkin's method for calculating the "values" of the system

$$Au_1 - \lambda Ku_2 = 0, \qquad Bu_2 - \lambda Lu_1 = 0 \tag{6}$$

is convergent in the space H_0. 5. Let $\{\varphi_1^{(k)}\}_{k=1}^{k=\infty}$ be A - complete in H and $\{\varphi_2^{(k)}\}_{k=1}^{k=\infty}$ be B - complete in H; then the system

$$\{\varphi_1^{(1)}, 0\}, \{0, \varphi_2^{(1)}\}, \{\varphi_1^{(2)}, 0\}, \{0, \varphi_2^{(2)}\}, \ldots$$

will be complete in H_0. The system

$$Au_1 + Ku_2 = f_1, \qquad Au_2 + Lu_1 = 0, \tag{7}$$

Card 2/4

A approximate solution ...

can be approximately solved in the form of

$$u^{(n)} = \sum_{k=1}^{n} a_k\{\varphi_1^{(k)}, 0\} + b_k\{0, \varphi_1^{(k)}\}, \tag{8}$$

re-written as:

$$u_1^{(n)} = \sum_{k=1}^{n} a_k \varphi_1^{(k)}, \quad u_2^{(n)} = \sum_{k=1}^{n} b_k \varphi_1^{(k)}. \tag{8'}$$

The coefficients a_k, b_k, k = 1, 2, ... n are determined by a system of 2n linear equations; this gives the solution for (7) as follows:

$$\begin{aligned}
&[\{Au_1^{(n)} + Ku_2^{(n)} - f_1,\ Au_2^{(n)} + Lu_1^{(n} - f_2\},\ \{\varphi_1^{(1)}, 0\}] = 0,\\
&[\{Au_1^{(n)} + Ku_2^{(n)} - f_1,\ Au_2^{(n)} + Lu_1^{(n)} - f_2\},\ \{0, \varphi_1^{(1)}\}] = 0,\\
&\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\\
&[\{Au_1^{(n)} + Ku_2^{(n)} - f_1,\ Au_2^{(n)} + Lu_1^{(n)} - f_2\},\ \{\varphi_1^{(n)}, 0\}] = 0,\\
&[\{Au_1^{(n)} + Ku_2^{(n)} - f_1,\ Au_2^{(n)} + Lu_1^{(n)} - f_2\},\ \{0, \varphi_1^{(n)}\}] = 0.
\end{aligned}$$

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A approximate solution ...

in this case the system has the form:

$$\sum_{k=1}^{n} a_k (A\varphi_1^{(k)}, \varphi_1^{(j)}) + \sum_{k=1}^{n} b_k (K\varphi_1^{(k)}, \varphi_1^{(j)}) = (f_1, \varphi_1^{(j)}),$$

$$\sum_{k=1}^{n} b_k (A\varphi_1^{(k)}, \varphi_1^{(j)}) + \sum_{k=1}^{n} a_k (L\varphi_1^{(k)}, \varphi_1^{(j)}) = (f_2, \varphi_1^{(j)}),$$

$$j = 1, 2, \ldots, n.$$

There are two Soviet-bloc references.

ASSOCIATION: Matematicko-fysikální fakulta Karlovy university (Faculty of Mathematics/Physics, Charles University)

SUBMITTED: March 23, 1959

16.6500

37615
S/044/62/000/004/075/099
C111/C222

AUTHOR: Kolomý , Josef

TITLE: On the convergence and application of the iteration method

PERIODICAL: Referativnyy zhurnal, Matematika, no. 4, 1962, 81, abstract 4B381. ("Časop pěstov. mat.", 1961, 86, no. 2, 148 - 177)

TEXT: In the first part of the paper, the author considers the application of the iteration process with minimal discrepancies (Krasnosel'skiy, M.A., Kreyn, S.G., Matem. sb., 1952, 31, 315 - 334) to the solution of the functional equation

$$A y = f \qquad (1)$$

where A is a bounded operator in the Hilbert space H. The second part of the paper is concerned with the iteration process

$$y_{n+1} = P f + \frac{(f, Ay_n)}{\|Ay_n\|^2} (I - P A) y_n \ , \qquad (2)$$

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On the convergence and application ... S/044/62/000/004/075/099
C111/C222

where the operator P commutates with A and is such that P^{-1} exists and $\| I - P A \| = q < 1$. It is proven that the sequence $\{ y_n \}$ converges to the solution y of equation (1), whereby

$$\| y - y_n \| \leqslant k q^n \| f - A y_o \|$$

with $k = \| A^{-1} \| \leqslant \frac{\| P \|}{1 - q}$. Special cases of process (2) for specially chosen operators P are considered. Numerical examples are given.

[Abstracter's note : Complete translation.]

Card 2/2

KOLOMY, Josef (Ke Karlovu 3, Praha 2)

The similar iterative method. Cas pro pes mat 86 no.3:308-323 '61.

1. Matematicko-fysikalni fakulta Karlovy university, Praha.

KOLOMY, Josef (Ka Praha 2)

On the solu ear functional equations in Hilbert space. Cas pro pes m 4-317 '61.

1. Matemat ni fakulta Karlovy university, Praha.

KOLOMY, Josef

Generalization of Wiarda's method of solution on nonlinear functional equations. Chekhosl mat zhurnal 13 no.2:159-165 Je '63.

1. Matematicky ustav Karlovy university, Praha 8 - Karlin, Sokolovska 83.

KOLOMYETS, N.V.; LEV, Yo.Ya.; SYSOYEVA, L.M.

Electric properties and a model of the valence band of germanium telluride. Fiz. tver. tela 6 no.3:706-713 Mr '64. (MIRA 17:4)

1. Institut poluprovodnikov AN SSSR, Leningrad.

KOLOMYJSKI, BOGDAN

Dokumentacja planowania wykonawczego produkcji wydzialu wielkich piecow. Warszawa, Panstwowe Wydawn. Techniczne, 1954. 27 p. (Warsaw. Instytut Ekonomiki i Organizacji Przemysłu. Prace, zesz 15)

SOURCE: East European Accession List (EEAL) Library of Congress Vol. 5, no. 8, August 1956

KOLOMYJSKI, Bohdan, mgr. inz.

Development of the iron industry and the Lenin Steel Works and the needs of the metallurgical industry. Przegl mech 21 no.9/10:263-266. 10-25 My '62.

1. Dyrektor naczelny Huty im. Lenina, Krakow - Nowa Huta.

KOLOMYS, N.Ye., inzh.; SMIRNOV, A.P., inzh.; TREGUB, V.T., inzh.

Experience in using heat shields in 150 Mw. blocks. Elek. sta. 35 no.3:8-12 Mr '64. (MIRA 17:6)

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E073/E535

18.9000

AUTHORS: Kolomyshchev, P. T., Candidate of Technical Sciences and Strekopytov, S. A., Engineer

TITLE: Application of High Frequency Heating for Detecting Structures of Various Alloys

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, No 4, pp 56-58 + 1 plate (USSR)

ABSTRACT: The influence of the structure of a number of alloys was investigated by thermal coloration using high frequency heating of the specimens. Prior to heating the cylindrical specimen was ground and polished and then placed on a porcelain base into the centre of the inductor. After the current is switched on for 5 to 10 secs, the polished surface is covered by a thin oxide film. The heating was effected in an inductor of 70 mm diameter using a tube oscillator of 60 kW operating at a frequency of 300 kc/sec. The heating duration was 5 to 7 secs and in some cases 10 secs. Fig 1 (plate) shows the thus revealed microstructure

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Application of High Frequency Heating for Detecting Structures of Various Alloys

containing 0.2% C, 21% Cr, 11% Ni and 2.5% W. Fig 2 shows the structure of a binary alloy of cobalt with 7% boron; the alloy was homogenized at 1000°C for 48 hours. The structure consists of the borides Co_3B and Co_2B which are of very similar composition but in spite of that the thermal coloration enabled distinguishing one from the other. Fig 3 shows the microstructure of alloys of chromium with 8.5 and 10.5% boron. Fig 4 shows the microstructure of an alloy of the system Ni-Cr-B containing 5.5% B and 20% Cr. In the case of titanium alloys ordinary etching does not reveal the structure satisfactorily but high frequency thermal acceleration does reveal it; greater contrast is obtained if prior to heating electrolytic etching is applied for 5 to 10 secs in a bath consisting of 7 ml HF + 27 ml HNO_3 + 66 ml H_2O. The specimen is a

 cathode and a 1 mm platinum wire can be used as an

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Application of High Frequency Heating for Detecting Structures of Various Alloys

anode, the current density being 0.005 A/cm^2. Fig 5 (plate) shows microstructure photographs of titanium alloys made in this way. The authors recommend using the method of thermal coloration for investigating the microstructures of heterogeneous alloys. Investigation of the microhardness of boride phases in the system Cr-B revealed that the microhardness of borides for B contents up to 29% remains unchanged.
There are 5 figures and 7 Soviet references.

Card 3/3

KOLOMYTS, E.G.

Indicator role of the snow cover in studying winter conditions in taiga regions. Dokl. Inst. geog. Sib. i Dal'. Vost. no.6:19-28 '64. (MIRA 18:10)

KOLOMYTS, E.G.

Geographical differentiation of the snow cover in mountain taigas and its relation to the system of natural complexes. Dokl. Inst. geog. Sib. i Dal'. Vost. no.7:13-22 '64. (MIRA 18:10)

KOLOMYTS, E.G.

Snow covering of the southeastern part of the Stanovoy Upland. Izv. AN SSSR.Ser.geog. no.3:72-78 My-Je '62. (MIRA 15:5)

1. Zabaykal'skiy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR.
(Stanovoy Range—Snow)

KOLOMYTS, G.D.

Optimal soil moisture and the yield of grain. Zemledelie 26 no.9: 18-22 S '64. (MIRA 17:11)

1. Direktor Karachayevo-Cherkesskoy sel'skokhozyaystvennoy opytnoy stantsii.

SHAPIRO, I.D.; KOLOMYTSEV, G.G.; RYZHKOVA, Ye.V.

Growing speed of corn leaves and the resistance of corn to injury by frit flies. Agrobiologiia no.2:208-212 Mr-Ap '59.
(MIRA 12:6)

1. Pushkinskaya nauchno-issledovatel'skaya baza Vsesoyuznogo instituta zashchity rasteniy, Leningradskaya oblast'.
(Corn (Maize)--Disease and pest resistance)
(Frit flies)

KOLOMYTSEV, G.G.

Multifoliate red clover (Trifolium sativum Krome). Bot.zhur. 44 no.6:846-848 Je '59. (MIRA 12:11)

1. Khozyaystvo "Belogorka," Severo-zapadnogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva.
(Red clover) (Leaves)

5(2,4)

AUTHOR: Kolomytsev, P. T. SOV/20-124-6-18/55

TITLE: On the Phase Composition of the Alloys of the Cobalt-boron System (O fazovom sostave splavov sistemy kobal't-bor)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 6, pp 1247-1250 (USSR)

ABSTRACT: Several compounds of cobalt with boron exist (Refs 1-4). For the investigation the author provided 20 samples, 10 g in weight with 4 % and more boron. They were molten in pure argon and homogenized for 50 hours at 1,000°. Then the samples underwent a powder radiographic (Fig 4, Tables 1,2) as well as a microscopic analysis (Figs 1,2) in which connection the microhardness (load 50 g) was investigated. The result was the determination of 4 compounds in the mentioned system: Co_3B, Co_2B, CoB, and the η -phase which is apparently a diboride CoB_2 (Fig 3). The compound Co_3B was determined for the first time. Its lattice is isomorphic to that of Ni_3B: the roentgenometrical data for CoB were rendered more accurate. The compounds Co_3B, Co_2B, and CoB have an almost equal

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microhardness = 1,145 kg/mm^2. In connection with the formation of the η-phase which contains most boron the microhardness is more than doubled (up to 2,575 kg/mm^2). Professor I. I. Kornilov and S. A. Strekopytov were interested in the work and assisted in the carrying out of the experiment. There are 4 figures, 2 tables, and 7 references, 3 of which are Soviet.

ASSOCIATION: Voyenno-vozdushnaya inzhenernaya akademiya im. N. Ye. Zhukovskogo (Military Aviation Academy for Engineers imeni N. Ye. Zhukovskiy)

PRESENTED: November 6, 1958, by I. P. Bardin, Academician

SUBMITTED: October 28, 1958

5(2)

AUTHORS: Kornilov, I. I., Kolomytsev, P. T. SOV/20-125-2-23/64

TITLE: Continuous Solid Metallide Solutions in the Trinary System Co-Ni-B (Nepreryvnyye metallidnyye tverdyye rastvory v troynoy sisteme Co-Ni-B)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 2, pp 325-326 (USSR)

ABSTRACT: The first-mentioned author (Refs 1, 2) has formulated the basic conditions of isomorphism in metal compounds on the fulfilment of which continuous solid solutions among these compounds can be formed: 1) the crystal lattices should be of the same type; 2) the compounds participating ir the formation must be atomically similar; 3) the types of chemical linkage must be identical; 4) one and the same element must be contained in the compounds; 5) the stoichiometrical composition of the compounds must be identical, and 6) continuous solid solutions must be formed among the metals forming the compounds. For the above-mentioned solutions, the author has coined the term metallide solutions (metallidnyye rastvory) (Ref 2). Scientific publications do not contain any investigations into the systems from lower borides with regard to the formation of the solutions

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Continuous Solid Metallide Solutions in the Trinary System Co-Ni-B SOV/20-125-2-23/64

mentioned in the title. Therefore, the authors investigated 2 metallide systems: Co_3B-Ni_3B and Co_2-Ni_2B. First, the binary compounds Co_3B, Co_2B; Ni_3B and Ni_2B were produced. The investigation of the x-ray photographs of all samples showed the alloys of the system Co_3-Ni_3B to be monophasic (Fig 1). Their crystal lattices are isomorphous to the lattices of the pure compounds Co_3B and Ni_3B. The alloys of the system Co_2-Ni_2B (Fig 2) are also homogeneous and possess tetragonal crystal lattices which are isomorphous to the lattices of Co_2B and Ni_2B. Figure 3 shows the x-ray photograph of the trinary system. The volume of the unit cell decreases with rising nickel content in the solid solution. Microscopic analysis confirmed the formation of monophasic structures in said systems. Figure 3 shows a microphotograph of the system Co_3B-Ni_3B (30 and 70%). As may be seen from it, the alloys have homogeneous structures. Figure 4 shows the alloy Co_2B and Ni_2B with 50% contents of each of the components.

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Continuous Solid Metallide Solutions in the Trinary System Co-Ni-B SOV/20-125-2-23/64

Measurings of micro-hardness showed the hardness of the continuous solutions in the system Co_3B-Ni_3B to be practically independent of the composition of this system, and to amount to 1145 kg/mm^2, also with respect to the components, at a load of 50 g. Thus the existence of continuous metallide solid solutions among the above-mentioned lower borides has been established. There are 4 figures, 1 table, and 8 references, 7 of which are Soviet.

ASSOCIATION: Voyenno-vozdushnaya inzhenernaya Akademiya im. N. Ye. Zhukovskogo (Military Aviation Engineering Academy imeni N. Ye. Zhukovskiy)

PRESENTED: December 27, 1958, by I. I. Chernyayev, Academician

SUBMITTED: December 22, 1958

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S/180/60/000/03/015/030
E111/E352

18.1250

AUTHOR: Kolomytsev, P.T. (Moscow)

TITLE: Phase Diagram of the System Nickel-Nickel Sub-boride

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, Nr 3, pp 83 - 85 + 1 plate (USSR)

ABSTRACT: The compound Ni_3B in the Ni-B system has been detected (Ref 3) and the present author has synthesised and isolated it. Its lattice has been shown to be isomorphous with that of cementite (Ref 4). Existing Ni-B phase diagrams do not include Ni_3B and in the present work the author describes his construction of a new diagram for Ni-Ni_2B up to 8.42 wt.% B. Alloys were prepared from grade N0000 nickel (at least 99.99% Ni + Co, not over 0.005% Co), carbonyl nickel (at least 99.8% Ni and as impurities 0.18% C, 0.0006% Si, 0.00027% Al, 0.00025% Cu, 0.001% Fe) and amorphous calcined boron (at least 98.8% B). Alloy carbon contents were under 0.05%. Thermal analysis was performed as described previously by the author for Co-Co_2B (Ref 5). Results are tabulated. From these and

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Phase Diagram of the System Nickel-Nickel Sub-boride

studies of microstructure (Figures 1-4) the new diagram is drawn (Figure 1). For alloys with very low boron contents nickel was alloyed with a 4% Ni-B alloy; in the forged alloys a boride component was detected at 0.004 - 0.006% B. The maximum solubility of boron was 0.025% and the author attributes Hoppin's erroneous value to oxidation. X-ray (CuK_α and CoK_α radiation) and microhardness determinations with a PMT-3 apparatus indicated the existence of a new phase. This is shown in Figure 5, for an alloy with 16% B. Its microhardness is about 2 500 kg/mm^2, compared with about 1 145 for the other phases. Ye.M. Alymova and S.A. Strekopytov participated in the experimental part of the work.

There are 5 figures, 1 table and 6 references, 1 of which is Soviet, 4 are English and 1 German.

SUBMITTED: February 22, 1960

Card 2/2

KOLOMYTSEV, P.T.

Interaction of boron with chromium in ternary nickel-base alloys. Issl. po zharopr. splav. 6:180-186 '60. (MIRA 13:9)
(Nickel-chromium alloys--Metallography) (Boron steel--Metallography)

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2308 26.2122

S/129/60/000/009/002/009
E193/E483

AUTHORS: Kolomytsev, P.T., Candidate of Technical Sciences, Samgin, A.A. and Snetkov, A.Ya., Engineers

TITLE: Structure and Composition of the Surface Layer of Gas Turbine Blades

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, No.9, pp.7-11

TEXT: The gas turbine blades studied in the course of the present investigation were made of several batches of the EI437A alloy, containing 19.5% Cr, 2.2 to 2.7% Ti and 0.55 to 0.7% Al. The manufacturing process entailed deformation of the blade surface to a depth of 15 to 30 microns. Specimens of the material exposed to the maximum temperature (730 to 750°C) were cut from blades that had been in service for 250 to 1110 h, and the structure of the surface layer was studied by spectrographic analysis of consecutively removed layers, X-ray analysis, microhardness measurements and metallographic examination. It was found that the surface layers of the blades studied consisted of: 1) a finely-grained recrystallized outer layer; 2) a work-hardened layer, characterized by increased hardness and larger lattice

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E193/E483

Structure and Composition of the Surface Layer of Gas Turbine Blades

parameter of the solid solution matrix; 3) a layer of undeformed material. The content of alloying additions in the surface layer was different from the nominal composition of the alloy. It was concluded that the harmful effect of surface hardening on the high temperature strength of the blades is due to the formation of a steep gradient in the magnitude of the lattice parameter of the alloy at high temperatures and to the presence of large internal stresses. The formation of surface cracks after prolonged service at elevated temperatures was attributed to the reduced content of the alloying additions in the surface layer of the blades. There are 7 figures, 1 table and 5 references; 4 Soviet and 1 French.

Card 2/2

18.1250 1496, 1454 only

S/089/61/010/003/017/021
B102/B205

AUTHORS: Kolomytsev, P. T., Moskaleva, N. V.

TITLE: Phase composition of high-nickel alloys of the system nickel-molybdenum-boron

PERIODICAL: Atomnaya energiya, v. 10, no. 3, 1961, 276-277

TEXT: This "Letter to the Editor" reports on studies of the microstructure and phase composition of Ni-Mo-B alloys which have gained a certain importance as a shielding material for regulating rods. The alloys studied were produced on the basis of nickel and contained 22-33 at% Mo and 25-33 at% B. They were molten from charge material with molybdenum powder (99.7 wt% Mo, 0.2 wt% O, and small amounts of Ni and Fe) in an argon atmosphere in aluminum-oxide crucibles. Subsequently, they were annealed at 1000°C for 100 hr and finally cooled on the air. To visualize the microstructure of the specimens, they were anodically etched and thermally stained by heating them with h-f current. Their microhardness was determined with a device of the type [illegible]-3 (PMT-3). X-ray analysis was performed by means of the K_α radiation of Co and the

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powder method. According to their phase composition, these alloys are divided into four groups: 1) nickel-base alloys with not more than 0.02-0.03 at% B, having the structure of a homogeneous solid solution; 2) alloys with not more than 10 at% Mo, whose structure exhibits Ni_3B in addition to the solid solution; 3) a three-component alloy which, in addition to the solid solution and Ni_3B, has a third component denoted by M; 4) a two-component alloy with more than 10 at%, i.e., a solid solution on the basis of nickel, and the M component. At a low content of boron, the M component is disperse, while at a higher content of boron, it appears in the form of shapeless bodies. The M component was separated and examined. It appeared to be a ternary Ni-Mo-B compound. Fig. 4 shows an isothermal section of the nickel corner of the Ni-Mo-B system at 1000°C; γ denotes the solid solution. There are 4 figures and 3 Soviet-bloc references.

SUBMITTED: September 12, 1960

37518
S/020/62/144/001/015/024
B119/B144

15.2240

AUTHOR: Kolomytsev, P. T.

TITLE: The structure of alloys of the system nickel - chromium - boron

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 1, 1962, 112 - 114

TEXT: Alloys obtained from pure Ni and Cr, and from amorphous B, with different contents of the individual components (up to 50 at% of B) were tempered at 1000°C in Ar atmosphere for 100 and 250 hrs, and then subjected to X-ray analysis (powder method) and metallographic analysis with determination of microhardness. The figure shows the phase diagram based on the data obtained. Microhardness of the δ-phase is 1500 kg/mm^2; that of the ε- (CrB) and β-phases is 1700 kg/mm^2. The γ-phase has the lowest microhardness. The system Ni-Cr-B shows no compounds consisting of all components. Small Al and Ti impurities do not form new boride phases. The structure of borides may, however, be affected by such impurities. There are 4 figures and 2 tables.

Card 1/2

S/020/62/144/001/015/024
B119/B144

The structure of alloys of the...

ASSOCIATION: Voyenno-vozdushnaya inzhenernaya akademiya im. prof. N. Ye. Zhukovskogo (Air Force Engineering Academy imeni Professor N. Ye. Zhukovskiy)

PRESENTED: December 28, 1961, by I. I. Chernyayev, Academician

SUBMITTED: December 24, 1961

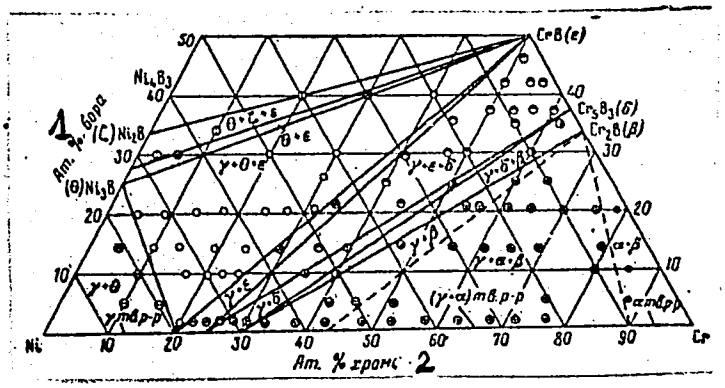


Fig. 1. Isothermal section of the system Ni-Cr-B at 1000°C (up to 50 at% B).

Legend: 1 = at% B; 2 = at% Cr.

Card 2/2

S/180/62/000/005/006/011
E193/E383

AUTHOR: Kolomytsev, P.T. (Moscow)

TITLE: Fracture of high-temperature strength alloys in creep

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo, no. 5, 1962, 128 - 134

TEXT: The mechanism of formation of cracks which initiate fracture of metals in creep is one of the more important problems in the theory of this phenomenon. The results of many investigations conducted both abroad and in the Soviet Union were summed-up by I.A. Oding and V.S. Ivanova (Dokl. AN SSSR, 1955, 103, 1), who stated that both the inter- and trans-crystalline fractures of metals in creep are due to the same processes; diffusion of vacancies; formation of vacancy aggregates or micropores; conversion of pores into cracks and growth of the cracks as a result of continued diffusion of vacancies. This mechanism presupposes a vacancy concentration which is several tens or even hundreds of thousands times higher than the equilibrium concentration of vacancies at temperatures at which creep takes place. According

Card 1/4

Fracture of ....

to some workers, the excess vacancies are generated by plastic deformation. There are, however, indications that other factors may be operating. Thus, for instance, it was observed by the present author in the course of a study of the mechanical properties of the material of the blades of a reaction turbine which had been in operation for 800 hours, that the high-temperature strength of the alloy ЭИ437Б (EI437A) remained unchanged after this period; at the same time, the number of cases of cracks appearing on the shaped sections of the blades increased with increasing service time. This indicated that, in the case of high-temperature strength materials, stressed for long periods at elevated temperatures, the nucleation and growth of cracks was associated not with the structural changes occurring in the interior of the alloy but with processes taking place in the surface layers. Consequently, the object of the present investigation was to assess the effect of the surface layers on the creep-resistance of two alloys: the alloy ХН80Т3 (KhN80T3) and a similar, more highly alloyed material. The results of the various tests conducted can be summarized as follows. 1) After a treatment which entailed holding the creep-test pieces for

Fracture of ....

1 hour at 900 °C and 16 hours at 700 °C, the surface layers of the KhN80T3 alloy became denuded of Ti, Cr and Al to a depth of 20 - 30 μ. 2) The rate of oxidation of polished specimens of the alloy KhN80T3 was slower than that of the same specimen re-tested after removal of the surface oxide layer formed during the first test. 3) Other conditions being equal, test pieces with a surface layer partly denuded of the alloying elements had a time-to-rupture shorter than those from which this surface layer had been removed. Based on these results, the following mechanism of the nucleation of cracks in the surface layer was postulated: oxidation of refractory alloys at high temperatures was characterized by different rates of diffusion of various alloying elements. As a result of nonuniform diffusion, the surface layer became denuded of the alloying elements, a large proportion of the lattice sites became vacant and the concentration of vacancies in the surface layer could be regarded as close to that of the nominal concentration of the alloying elements in the alloy. Owing to nonuniform distribution of vacancies in the surface layer, there was a vacancy-concentration gradient which caused movement of vacancies towards dislocation

Fracture of ....

arrays and the formation of sub-boundaries. Under the action of an applied stress at elevated temperatures vacancies (both already present and freshly formed) in the surface layer migrated and formed nuclei of cracks (possibly at the sub-boundaries). The micro-cracks, favourably oriented in relation to the grain boundaries, grew and ultimately led to fracture. It can, therefore, be concluded that in addition to the process of nucleation and growth of cracks, which is associated with plastic deformation, another mechanism of crack-nucleation operates which is associated solely with non-uniform distribution of alloying elements and the resultant formation of vacancies in the surface layer. As the time of service under stress at elevated temperatures increases, the relative part played by the latter mechanism increases and that played by plastic deformation decreases. This applies particularly to Ni-Cr alloys characterized by relatively low ductility.
There are 4 figures and 1 table.

SUBMITTED: April 14, 1962

Card 4/4

KOLOMYTSEV, P.T.

Structure of nickel - chromium - boron alloys. Dokl.AN SSSR 144 no.1:112-114 My '62. (MIRA 15:5)

1. Voyenno-vozdushnaya inzhenernaya akademiya im. prof. N.Ye. Zhukovskogo.

(Nickel-chromium-boron alloys)

KOLOMYTSEV, P.T. (Moskva)

Failure of heat-resistant alloys under the effect of creep.
Izv. AN SSSR.Otd.tekh.nauk. Met. i topl. no.5:128-134 S-O '62.
(MIRA 15:10)

(Heat-resistant alloys) (Creep of metals)

AP4016509 S/0020/64/154/005/1120/1122

...my'tsev, P. T.; Moskaleva, N. V.

...of the structure of alloys ... boron

... Nauki ... v. 154, no. ...

molybdenum nickel boron system, ... alloy property, intermetallic ... boride, ... phase composition, cast alloy

... phase composition of cast ... containing ... samples annealed at ... was studied ... diffraction method and microscopic examination, microhardness was ... Fig. 1 shows the isothermal ... diagram at ... solid solution based on Mo, ... based on Ni, δ-intermetallic compound NiMo, M-ternary phase, ... and ζ-compound MoB. The solubility ... in the gamma phase is only 0.02 at.% B; it is not much larger in the α-phase. The microhardness of

Card ... *[Should be Mo_2B_5 not Mo_2B_5]

ACCESSION NR: AP4016509

...boride phases is in the 1000--1100 kg/mm^2 range. In phase M and in the ...boride phases it is 1500--1600 kg/mm^2. ... the microhardness is ... the relative amounts of metal and boron. It is contrary to data ..., the difference is explained by differences in the methods of ... boride phases. Orig. art. has: 2 figures.

...ayenno-vozdushnaya inzhenernaya akademiya im. N. Ye. Zhukovskogo (Engineering Academy)

SUBMITTED: [illegible] ENCL: 01 SUB CODE: [illegible]

NO REF SOV: [illegible] OTHER: 006

ACCESSION NR: AP4016509 ENCLOSURE: 01

Fig. 1. Isothermal cross section at 1000C of the molybdenum-nickel-boron diagram (to 50 at. % B).

L 08190-67 EWP(e)/EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD/HW/JG

ACC NR: AP6031597 SOURCE CODE: UR/0226/66/000/008/0086/0092

AUTHOR: Kolomytsev, P. T. (Moscow); Moskaleva, N. V. (Moscow)

ORG: none

TITLE: Phase structure and properties of alloys of the molybdenum-nickel-boron system

SOURCE: Poroshkovaya metallurgiya, no. 8, 1966, 86-92

TOPIC TAGS: alloy phase diagram, molybdenum containing alloy, nickel containing alloy, boron containing alloy

ABSTRACT: The alloys for the investigation were prepared from the following starting materials: carbonyl nickel (purity 99.98%), N0000 nickel, molybdenum of 99.98% purity, and amorphous boron (purity 99.8%). About 200 alloys were prepared. The alloys were prepared in two ways, by melting the metals with an alloy containing boron and by powder metallurgy. The phase diagrams of the alloys were determined by X ray analysis of precipitates separated in an electrolytic solution. The study of the structure of the alloys of the ternary system in the solid state was done with respect to cross sections parallel to the side of the molybdenum-nickel concentration triangle, with a constant boron content. After a homogenizing treatment at temperatures of 1200, 1000, and 800°C, the alloys were rapidly cooled. As a result of investigations at 1000°, there was established the presence of the following phases: η -phase based on the

Card 1/2

L 08190-67

ACC NR: AP6031597

boride Ni_3B; Θ-phase based on the boride Ni_2B; λ-phase based on the boride Ni_4B_3; μ-phase based on the boride NiB; β-phase based on the boride Mo_2B; δ-phase based on the boride MoB; δ-compound corresponding to the stoichiometric composition NiMo; and the ternary boride phase Mo_2NiB_2. On the basis of the experimental data, the article gives isothermal cross sections of the diagram of state of the system at temperatures of 1200, 1000, and 800°C. The physical and chemical properties, as well as the mechanical properties of the alloys and phases making up the system are shown in a series of tables. A study was made of the heat resistance of a series of alloys at 1000°C, and it was established that the boride phases exert a positive influence on the strength of the alloys. The highest heat resistance was exhibited by an alloy with the structure of a solid solution of α-molybdenum, hardened with the Mo_2B phase. Orig. art. has: 7 figures and 2 tables.

SUB CODE: 20, 07/ SUBM DATE: 14Apr66/ ORIG REF: 002/ OTH REF: 001

Card 2/2 dda

KOLOMYTSEV, V.I.; PETRINA, D.Ya.

One supplement to the Bogoliubov-Vladimirov thereon. Ukr. mat. zhur. 12 no.2:165-169 '60. (MIRA 13:10)
(Functional analysis)

KOLOMYTSEV, V.I. (Kiyev)

Analytic properties of contributions to the Feynman amplitude from some very simple diagrams. Ukr.mat.zhur. 14 no.2:129-137 '62. (MIRA 15:11)
(Functions of complex variables) (Perturbation)

L 10455-63 EWT(l) AFWL/ESD(t)/ASD(a)-5
ACCESSION NR: AP4047519 S/0041/64/016/005/0610/0623

AUTHORS: Kolomy*tsev, V. I. (Kiev); Fushchich, V. I. (Kiev)

TITLE: Analytic property of scattering amplitudes corresponding to a class of Feynman diagrams

SOURCE: Ukrainskiy matematicheskiy zhurnal, v. 16, no. 5, 1964, 610-623

TOPIC TAGS: Feynman diagram, complex variable, singular function, scattering amplitude

ABSTRACT: The analytic property of Feynman amplitudes was studied. In the first part of the analysis a theorem is obtained proving the absence of complex singularities in a Feynman scattering amplitude of a specific type. In the second part a class of diagrams is considered where the scattering amplitude satisfies the theorem derived above. The Feynman amplitude is given by

$$F(s, t) = \int \frac{\prod_{i=1}^{n} d\alpha_i \delta\left(1 - \sum_{i=1}^{n} \alpha_i\right) [C(\alpha)]^{\rho}}{[D(\alpha; s, t)]^{r}}$$

Card 1/5

where $$D(\alpha; s, t) = f(\alpha)\, s + g(\alpha)\, t - K(\alpha; m_i^2 M_j^2)$$

satisfying the conditions

$$f(\alpha) = \alpha_n f_1(\alpha_{n-2}) > 0,$$

$$g(\alpha) = \alpha_{n-1} g_1(\alpha_{n-3}) > 0,$$

$$-K(\alpha; m_i^2, M_j^2) = \alpha_n \alpha_{n-1} k_1(\alpha_{n-3}; M_j^2) + \alpha_n k_2(\alpha_{n-3}, m_i^2, M_j^2) +$$
$$+ \alpha_{n-1} k_3(\alpha_{n-2}, m_i^2, M_j^2) + k_4(\alpha_{n-3}, m_i^2, M_j^2).$$

In order to show that for $M_j^2 \leq 0$, the function $F(s,t)$ has no complex singularities in either variable s and t, the analytic nature of the integrand

$$\Phi(\alpha; s, t) = \int_0^{1-\sum_i^{n-2} \alpha_i} d\alpha_{n-1} \frac{1}{(c_{n-1}\alpha_{n-1}^2 + 2b_{n-1}\alpha_{n-1} + a_{n-1})^r}$$

is examined over the Landau surface

$$\Delta_{n-1} = (2b_{n-1})^2 - 4c_{n-1}a_{n-1} = 0;$$

Card 2/5

in seven different domains in the plane of the real variables s,t. The following lemma is then obtained: $\Phi(\alpha; s,t)$ has only real singular points at any α in the integration domain

$$F(s,t)=\int \frac{\prod_{i=1}^{n-1} d\alpha_i\,[C(\alpha)]^{\beta}}{[c_{n-1}\alpha_{n-1}^2+2b_{n-1}\alpha_{n-1}+a_{n-1}]^{\gamma}}\,.$$

From this lemma a theorem is formulated which states: the Feynman amplitude, as [illegible] above and satisfying conditions 3-5 at $M_j^2 \leq 0$, forms an analytic function in [illegible] the domain of two arbitrary planes with the exclusion of a branch cut along the real axis

$$s_2 = \operatorname{Im} s = 0, \quad s_0 \leqslant \operatorname{Re} s < \infty; \quad t_2 = \operatorname{Im} t = 0, \quad t_0 \leqslant \operatorname{Re} t < \infty.$$

[illegible] results are applied to a Feynman diagram of fourth order (see Fig. 1 on the [illegible] where $f(\alpha)$ and $g(\alpha)$ of the quadratic discriminant D are represented [illegible]

$$f(\alpha) = \alpha_n f_1(\alpha_1, \ldots, \alpha_{n-2}),$$

$$g(\alpha) = \alpha_{n-1} g_1(\alpha_1, \ldots, \alpha_{n-3}) \,.$$

Card 3/5

L 12455-65
ACCESSION NR: AP4047519

Furthermore, it is shown that D itself can be represented by

$$D(\alpha; s, t) = \alpha_n f_1(\alpha_{n-2})\, s + \alpha_{n-1} g_1(\alpha_{n-2})\, t + \alpha_n \alpha_{n-1} k_1(\alpha_{n-3})\, M_3^2 +$$

$$+ \alpha_n k_2(\alpha_{n-3}, m_i^2, M_j^2) + \alpha_{n-1} k_3(\alpha_{n-2}, m_i^2, M_j^2) + k_4(\alpha_{n-2}, m_i^2, M_j^2),$$

and consequently that the part contributing to the scattering amplitude satisfies all the conditions of the theorem derived in part one. The analysis is then extended to a Feynman diagram of order six. Orig. art. has: 49 equations and 4 figures.

ASSOCIATION: none

SUBMITTED: 07Dec63 ENCL: 01

SUB CODE: MA, GP NO REF SOV: 002 OTHER: 004

Card 4/5

L 12455-65
ACCESSION NR: AP4047519

ENCLOSURE: 01

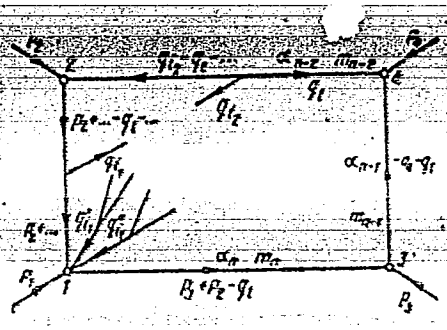


Fig. 1. Feynman diagram.

Card 3/3

KOLOMYTSEV, V.I (Kiyev); PUSHCHICH, V.I. (Kiyev)

Analytic properties of the scattering amplitude corresponding to a class of Feynman diagrams. Ukr. mat. zhur. 16 no.5:610-623 '64.
(MIRA 17:10)

L 13438-66 EWT(1)/EWA(m)-2

ACC NR: AP6002456 SOURCE CODE: UR/0057/65/035/012/2249/2251

AUTHOR: Kolomoytsev, V.S.

ORG: none

TITLE: Theory of the electric arc column 21,44,55

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 12, 1965, 2249-2251

TOPIC TAGS: electric arc, approximation, ~~mathematic method~~

ABSTRACT: Objection is raised to an approximation that it is asserted was employed in the paper entitled "On the theory of the column of an electric arc burning in conditions of natural convection" by I.A.Krinberg (ZhTF, 34, 888, 1964). Means are given for avoiding this approximation and the theory of Krinberg is extended to the case of an arc burning in a blast of cooling gas. The notation of the criticized paper is employed. (Abstracter's note: It is difficult to follow the argument without reference to the original paper). Orig. art. has: 9 formulas.

SUB CODE: 20 SUBM DATE: 02Feb65 ORIG.REF: 002 OTH REF: 000

Card 1/1

VLASYUK, P.A., akademik, otv. red.; KOLOMIYTSEVA, N.G., prof., red.; KRUPSKIY, N.K., prof., red.; KLIMOVITSKAYA, Z.M., doktor biol. nauk, red.; KURINNAYA, M.F., kand. med. nauk, red.; MITSYK, V.Ye., kand. vet. nauk, red.; KAPITANCHUK, V.A., red.; RUDAKOVA, E.V., kand. biol. nauk, red.; SKUTSKAYA, N.P., red.

[Use of trace elements in agriculture; Republic interdepartmental collection of papers] Primenenie mikroelementov v sel'skom khoziaistve; Respublikanskii mezhvedomstvennyi sbornik. Kiev, Naukova dumka, 1965. 218 p. (MIRA 18:7)

1. Akademiya nauk URSR, Kiev. 2. Institut fiziologii rasteniy Ukr.SSR (for Vlasyuk, Rudakova).

LESHCHENKO, P.D., red.; BARCHENKO, I.P., red.; KOLOMEYTSEVA, M.G., red.; KRYZHANOVSKAYA, Ye.S., red.; SHALYA, Z.A., red.

[Rational nutrition] Ratsional'noe pitanie. Kiev, Zdorov'ia, 1965. 219 p. (MIRA 18:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut pitaniya.
2. Ukrainskiy nauchno-issledovatel'skiy institut pitaniya (for Leshchenko, Kryzhanovskaya, Shalya).

IRGER, I.M., prof.; BAUM, B.M.; KOLOMOYTSEVA, I.P.; RUMYANTSEV, Yu.V.; SHTUL'MAN, D.R.; FAL'CHUK, A.Ya.

Results of surgical treatment of discogenic cervical myelopathy. Trudy 1-go MMI 38:318-341 '65. (MIRA 18:10)

SHTUL'MAN, D.R., assistent; SHIFRIN, S.S., kand. med. nauk; KOLOMOYTSEVA, I.P., assistent; RUMYANTSEV, Yu.V.

Clinical and roentgenological correlations in discogenic cervical myelopathy. Trudy 1-go MMI 38:235-246 '65. (MIRA 18:10)

KOLOMYTSOV, Yu.V.

Contrast range of interference bands of equal inclination in the presence of deformations of wave surfaces. Opt. i spektr. 14 no.5:705-712 My '63. (MIRA 16:8)

(Spectrum analysis)
(Interferometry)

KOLOMIYTSOVA, T.S.; NOVIKOVA, I.V.

Photoelectric method of recording interference bands in white light.
Opt. i spektr. 8 no.3:363-370 Mr '60. (MIRA 14:5)
(Interferometry)

KOLOMYTTSEVA, R.V.

New technology for laying slag pads. Put' i put.khoz. 7 no.9: 28-29 '63. (MIRA 16:10)

1. Starshiy inzh. Chelyabinskoy distantsii Yuzhno-Ural'skoy dorogi.

KOLOMYTTSEVA, R.V.

Fighting the elements. Put' i put. khoz. 7 no.11:25-27 '63.
(MIRA 16:12)

1. Starshiy inzh. Chelyabinskoy distantsii Yuzhno-Ural'skoy. dorogi.

BEDA, E., inzh.; PETERSON, A., inzh.; BEGUNOV, I.; KALENT'YEV, V., inzh.; PRIKHOD'KO, V., inzh.; CHERTKOV, V., inzh.; KOLOMYYCHENKO, V., inzh.; BIKEYEV, V., inzh.; KOGUYENKO, B.

Exchange of experience. Avt. transp. 43 no.1:49-54 Ja '65. (MIRA 18:3)

ROSHCHUPKIN, Igor' Georgiyevich, dots.; ANAN'IN, Gleb Pavlovich, dots.;ARSLANOV, Nikolay Konstantinovich, dots.Prinimali uchastiye: KOLONCHUK, V.M., inzh.; SIDOROV, N.A., inzh.; POL'ZIKOV, I.N., dots.; KORZH, G.V., kand. tekhn. nauk; BARANOV, A.I., otv. red.; OKHRIMENKO, V.A., red. izd-va; SABITOV, A., tekhn. red.

[Working mineral deposits] Razrabotka mestorozhdenii poleznykh iskopaemykh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1962. 590 p. (MIRA 15:4)
(Mining engineering)

KOLONDO, V.V.

Expanding the scope of socialist competiton. Spirt.prom.27 no.4:5-6 '61. (MIRA 14:6)
(Moscow--Liquor industry)

SEMENOV, L.S.; YURCHENKO, A.L.; KOLONEY, T.N.

Degree of locking as the indicator of the airtightness of the seaming. Kons. i ov. prom. 18 no.8:26-28 Ag '63. (MIRA 16:8)

1. Konservnyy kombinat v Krymske (for Semenov). 2. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti (for Yurchenko, Koloney).
(Tin cans—Testing)
(Sealing (Technology))

KOLONIN, G.R.

Direction of the double decomposition reactions of some chalcogenides. Geokhimiia no.11:1202-1203 N '64. (MIRA 18:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

GODOVIKOV, A.A.; KOLOMIN, G.R.

Native bismuth as a geological thermometer. Part 1: Morphologic characteristics of native bismuth. Trudy Inst. geol.i geofiz. Sib.otd. AN SSSR no.30:7-29 '64.

Native bismuth as a geological thermometer. Part 2: Morphologic and microscopic characteristics of artificial bismuth. Ibid.:30-46

(MIRA 18:11)

KOLONIN, G.R.

Genesis of the banded aplitelike structure of granite pegmatites. Geol. i geofiz. no.2:153-157 '64. (MIRA 18:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

GODOVIKOV, A.A.; KOLONIN, G.R.

Experimental studies of the characteristics of bismuth extraction and possibilities of its use as a geological thermometer. Geol. rud. mestorozh. 7 no.2:97-101 Mr-Ap '65. (MIRA 18:7)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, laboratoriya eksperimental'noy mineralogii.

KOLONIN, G.R.

Some physicochemical conditions governing the formation of natural bismuth and bismuthinite (calculation data). Dokl. AN SSSR 163 no.1: 205-208 Jl '65. (MIRA 18:7)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Submitted November 3, 1964.

BERMAN, D.I.; KOLONIN, G.V.

Nesting of the Himalayan finch Leucosticte nemoricola Hodgs. in Tuva. Ornitologiia no.6:268-271 '63. (MIRA 17:6)

KOLONIN, G.V.

Ornithofauna of the upper Amur Valley. Ornitologiia no.6. 472 '63.

Nesting of horned owl in the lower Volga Valley. Ibid. 473
(MIRA 17:6)

L 10082-63 EWP(q)/EWT(m)/BDS--AFFTC--JD

ACCESSION NR: AP3001421 S/0136/63/000/006/0058/0063

56

AUTHOR: Dergunova, V. S.; Kolonin, Yu. G.; Tseytlin, V. Z.

TITLE: Investigation of sintered alloys of a ZrC-TaC system

SOURCE: Tsvetnyye metally, no. 6, 1963, 58-63

TOPIC TAGS: ZrC-TaC alloys, lattice parameters, solubility of components, room temperature microhardness, hardness at high temperatures, temperature coefficient of hardness, application, specific density

ABSTRACT: Eleven ZrC-TaC alloys, ranging from pure ZrC to pure TaC, were investigated. Mixtures of 90.13%-pure Ta, 96.0%-pure Zr, and C were compacted, sintered in hydrogen at 1400--2400C, crushed, and hot compacted in graphite dies at 2600--2700C under a pressure of 230 kg/cm sup 2. Alloys were then annealed at 2300C for 2 hr. X-ray diffraction patterns showed that the lattice parameter "a" increased linearly from 4.440 Angstrom for pure ZrC to 4.680 Angstrom for pur TaC, indicating the unlimited solid solubility of the components Microscopic examination also revealed only one phase in all alloys studied. Specific density increased continuously with increasing TaC content. Microhardness at room temperature decreased continuously from approximately 2170 kg/mm sup 2 for alloys with approximately 10% TaC to approximately 1400 kg/mm sup 2 for alloys with 90%

Card 1/2

L 10082-63
ACCESSION NR: AP3001421

TaC. The hardness-composition curves at 450--1200C follow the same pattern as th of microhardness-composition at room temperature. The temperature coefficient of hardness at 700--1200C has the highest value in alloys with approximately 20% TaC and the lowest in alloys with 80--90% TaC. Alloys with 80--90% TaC also have the highest melting temperature and can be recommended for testing as structural materials for parts working at high temperatures in nonoxidizing media. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 09Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 005 OTHER: 001

Card 2/2

EPF(n)-2/EPD(b)-3/EWG(v)/EPA(w)-2/EWT(1)/EWA(c)/EWP(n)/T/EWA(d)/PSS-2

ACCESSION NR: AP5018198 UR/0207/65/000/003/0080/0084

AUTHORS: Kolonina, L. I. (Novosibirsk); Smolyakov, V. Ya. (Novosibirsk)

TITLE: Rotary motion and distribution characteristics of an arc column near the electrodes in a plasmatron with a gas vortex stabilization

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1965, 80-84

TOPIC TAGS: plasma arc, electrode, vortex, gas flow, electric arc, high speed [illegible] SKS 1M motion picture camera, SFR 1M motion picture camera, ZhS 17 [illegible]ter, SZS 22 light filter

ABSTRACT: The motion and distribution of an arc column in a vortex stabilized arc jet at constant current were investigated experimentally by means of high speed cameras. The details of the two arc jets used are shown in Fig. 1 on the Enclosure where 1a is a water-cooled electrode arc and 1b shows an uncooled arc. [illegible] was done taken 10-15 sec after the [illegible] of 5,000 frames per second [illegible] [illegible] [illegible] [illegible] [illegible] These results show that in the [illegible] [illegible] is a [illegible] of the arc spot near the [illegible] [illegible] [illegible] part of

Card 1/3

the column on the electrode wall. Furthermore, the diameter of the arc near the [illegible] larger than the diameter of the arc in the radial direction. This [illegible] by means of [illegible] rotation rate [illegible] variation of 20%. From the [illegible] current density in the arc [illegible] At 5 bar pressure and 50-150 amp [illegible] energy [illegible] estimated to be between 0.6×10^9 and 2.5×10^9 volts/m^2. Orig. art.

[illegible]

ACCESSION NR: AP5018198

ENCLOSURE: 01

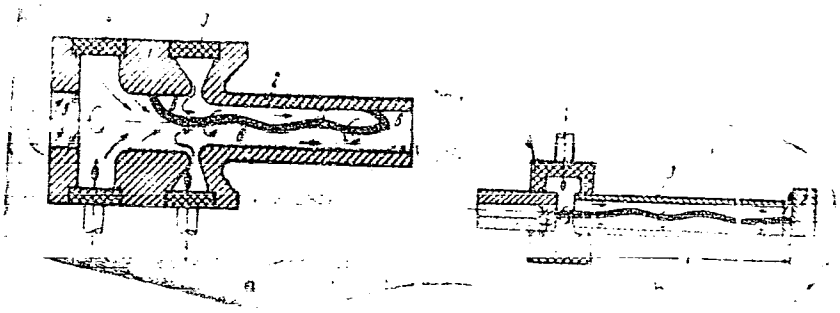
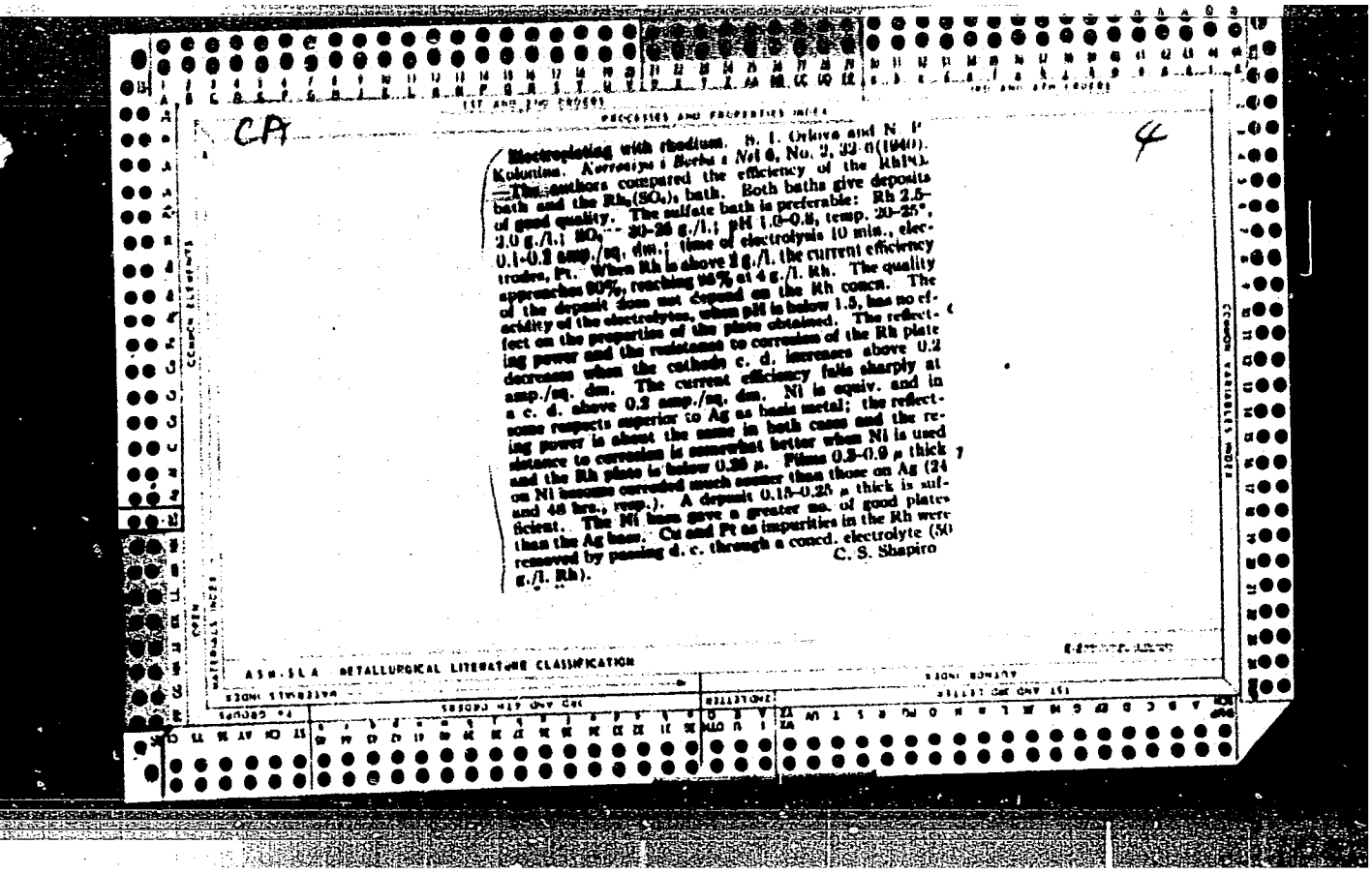


Fig. 1.

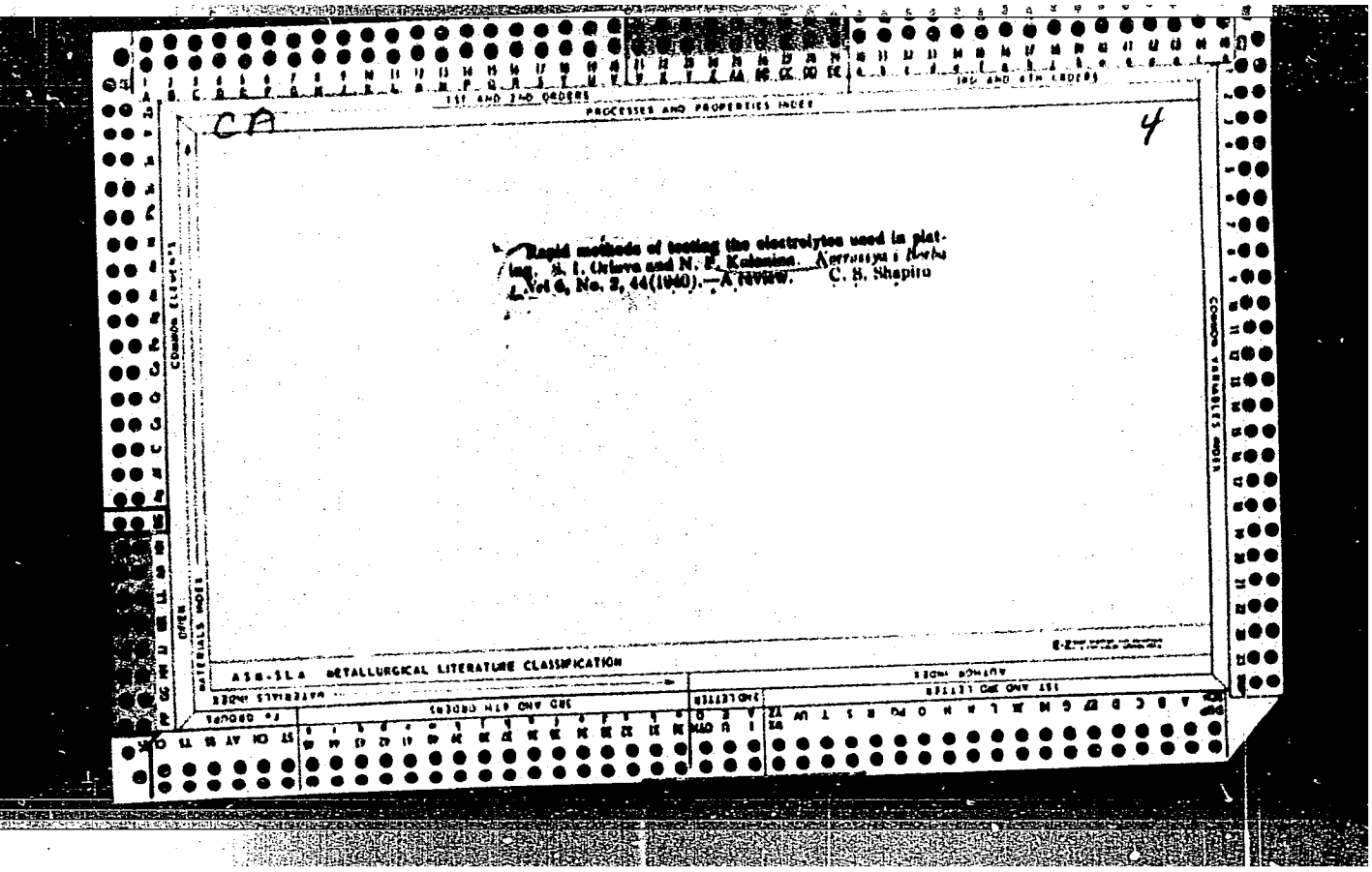


CA

4

Electroplating with rhodium. N. I. Orlova and N. P. Kolomina. *Korroziya i Borba s Nei* 6, No. 2, 32-6(1940). The authors compared the efficiency of the $RhNO_3$ bath and the $Rh_2(SO_4)_3$ bath. Both baths give deposits of good quality. The sulfate bath is preferable: Rh 2.5–2.0 g./l.; SO_4^{--} 20–26 g./l.; pH 1.0–0.8, temp. 20–25°, 0.1–0.2 amp./sq. dm.; time of electrolysis 10 min., electrodes, Pt. When Rh is above 2 g./l. the current efficiency approaches 90%, reaching 98% at 4 g./l. Rh. The quality of the deposit does not depend on the Rh concn. The acidity of the electrolytes, when pH is below 1.5, has no effect on the properties of the plate obtained. The reflecting power and the resistance to corrosion of the Rh plate decrease when the cathode c. d. increases above 0.2 amp./sq. dm. The current efficiency falls sharply at a c. d. above 0.2 amp./sq. dm. Ni is equiv. and in some respects superior to Ag as basis metal; the reflecting power is about the same in both cases and the resistance to corrosion is somewhat better when Ni is used and the Rh plate is below 0.25 μ. Films 0.3–0.9 μ thick on Ni become corroded much sooner than those on Ag (24 and 48 hrs., resp.). A deposit 0.18–0.25 μ thick is sufficient. The Ni base gave a greater no. of good plates than the Ag base. Cu and Fe as impurities in the Rh were removed by passing d. c. through a concd. electrolyte (50 g./l. Rh).

C. S. Shapiro



KOLONINA, N.P.

USSR/Inorganic Chemistry - Complex Compounds C.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4094

Author : Chernobrov, S.M., Kolonina, N.P.
Title : On pH Value During Formation of Cobalt Hydroxides and Carbonates

Orig Pub : Zh. prikl. khimii, 1956, 29, No 5, 704-708

Abstract : By potentiometric titration using a glass electrode, a determination was made at 60° of the pH values during the formation of cobaltous hydrates and Co carbonates. It is shown that the pH of the beginning of formation of precipitates on titration of $CoCl_2$ with a solution of NaOH decreases from 5.6 to 3.8; on titration of $CoCl_2$ with a solution of Na_2CO_3 it decreases from 5.45 to 3.9; on titration of $CoSO_4$ with a solution of Na_2CO_3 it decreases from 5.5 to 4.4 with an increase in the concentration of Co^{2+} in the initial solution from 5 to 100 g/liter. Composition of basic salts formed on

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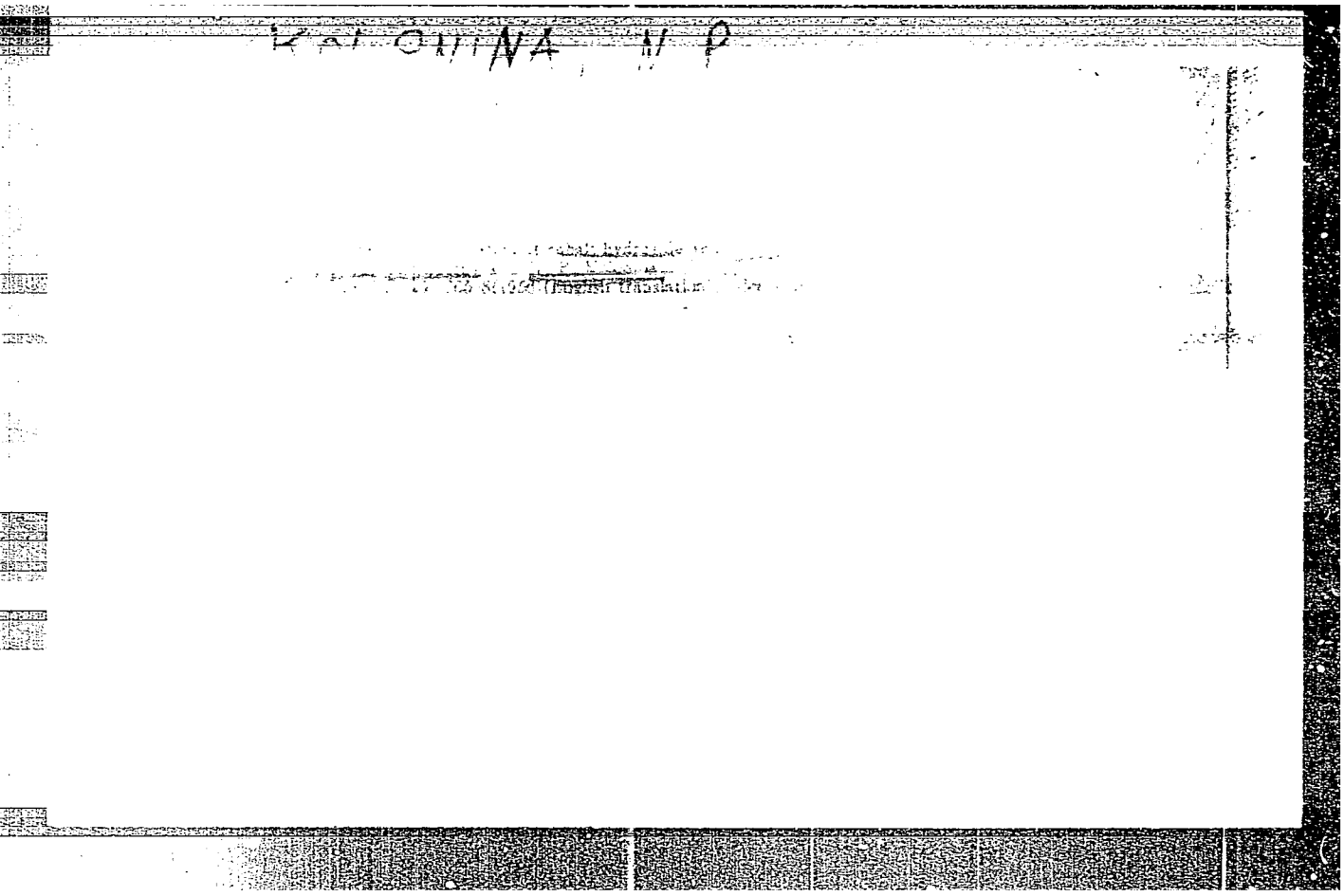
Inst. Nickel Cobalt & Tin Industry



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SOV/81-59-15-52784

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 15, p 69 (USSR)

AUTHORS: Chernobrov, S.M., Kolonina, N.P.

TITLE: On the Cathode Polarization in Electrolytic Deposition of Cobalt

PERIODICAL: Tr. Proyektn. i n.-i. in-ta "Gipronikel'", 1958, Nr 1, pp 150-159

ABSTRACT: The cathode polarization (CP) in electric deposition of Co, depending on the temperature (40, 60 and 80°C), the nature of the anions and H_3BO_3 additions, has been studied. CP decreases with an increase in the temperature and increases on adding H_3BO_3 and on substituting chloride solutions by sulfate solutions. The dependence (φ, lg i) is linear, in the case of a chloride solution the transfer coefficient a = 0.7 - 0.8. Additions of H_3BO_3 increase the CP; in the presence of Cl^--ions CP is less than in the presence of SO_4^{2-}-ions. The opinion has been expressed that the deposition rate of Co is determined by the stage of the discharge, that H_3BO_3 increases the activation energy of the discharge process and that the Cl^--ions are specifically adsorbed on the cathode.

Z. Solov'yeva

Card 1/1

KOLONINA, N.P.

Removal of small amounts of copper, lead, and zinc from nickel and cobalt chloride solutions by means of ion exchange. Zhur. prikl. khim. 33 no.11:2475-2480 N '60. (MIRA 14:4)

1. Institut nikelevoy, kobal'tovoy i olovyannoy promyshlennosti.
(Ion exchange) (Cobalt chloride)
(Nickel chloride)

KOLONINA, N.P.; KUBAREVA, N.I.; IPATOVA, G.N.

Ion exchange method of removing copper from nickel and cobalt chloride electrolytes. TSvet. met. 38 no.9:43-44 S '65. (MIRA 18:12)

ACC NR: AP7002577 (A, N) SOURCE CODE: UR/0413/66/000/023/0074/0074

INVENTOR: Gran', T.V.; Kolonina, N.P.; Kozich, Ye.S.

ORG: none

TITLE: Method for obtaining high-purity nickel by electrolytic refining. Class 40, No. 189154. [Announced by the Design and Scientific Research Institute of Gipronikel (Proektnyy: navchno-issledovatel'skiy institut "Gipronikel")]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 74

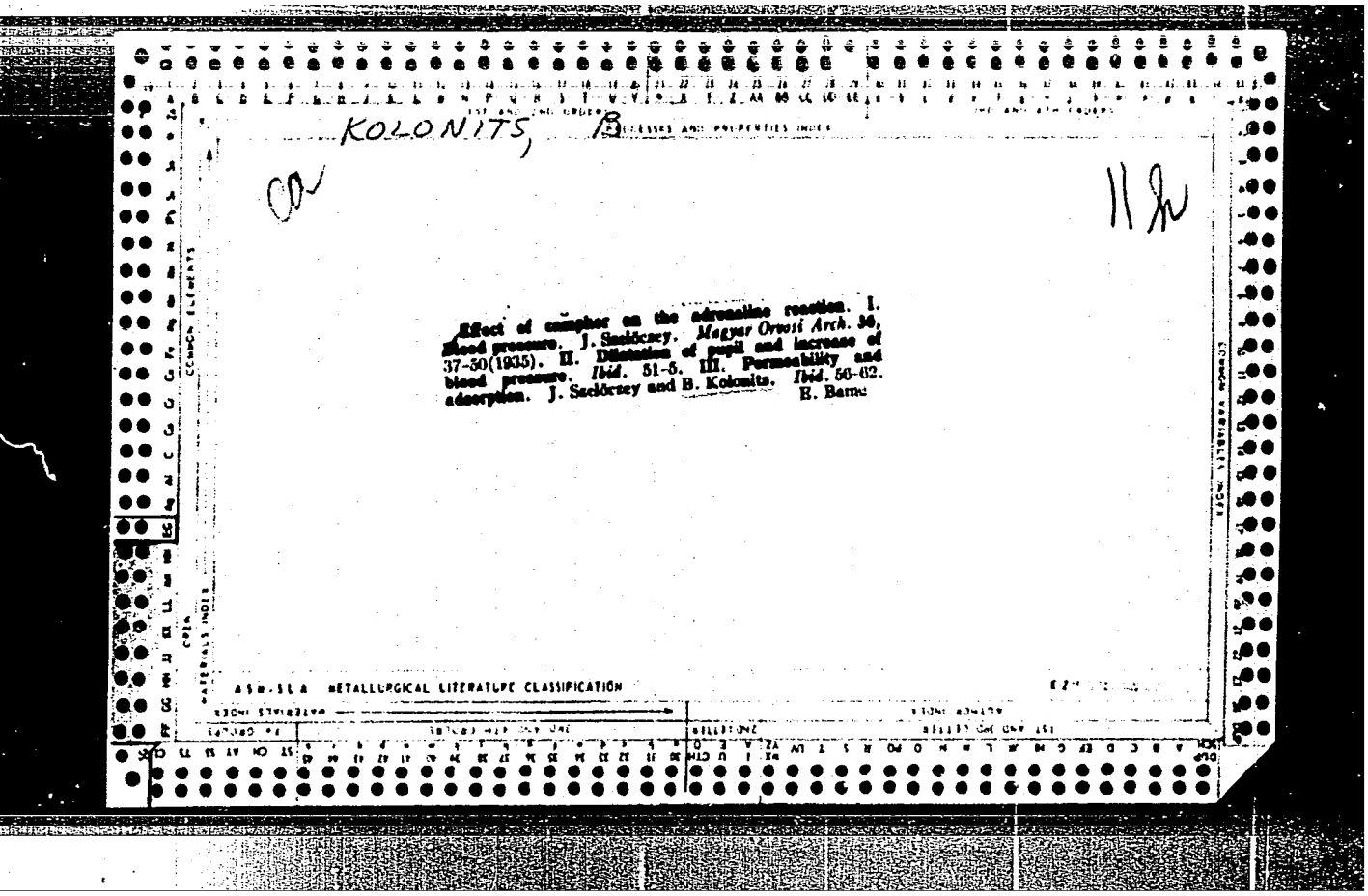
TOPIC TAGS: nickel ~~electrolytic refining~~, electrolytic refining, high purity ~~nickel~~ metal

ABSTRACT: This Author Certificate introduces a method of electrolytic refining of nickel distinguished by the use of black nickel hydrates for removal of arsenic, lead, and zinc from the electrolyte. To obtain high purity nickel containing less than 0.0001% zinc and to reduce the consumption of black nickel hydrates, zinc is removed from the electrolyte, prior to the introduction of black hydrates, by the ion-exchange process.

UDC: 669.243.87:66.067.85 [AZ]

SUB CODE: 11/ SUBM DATE: 18Mar65/ ATD PRESS: 5113

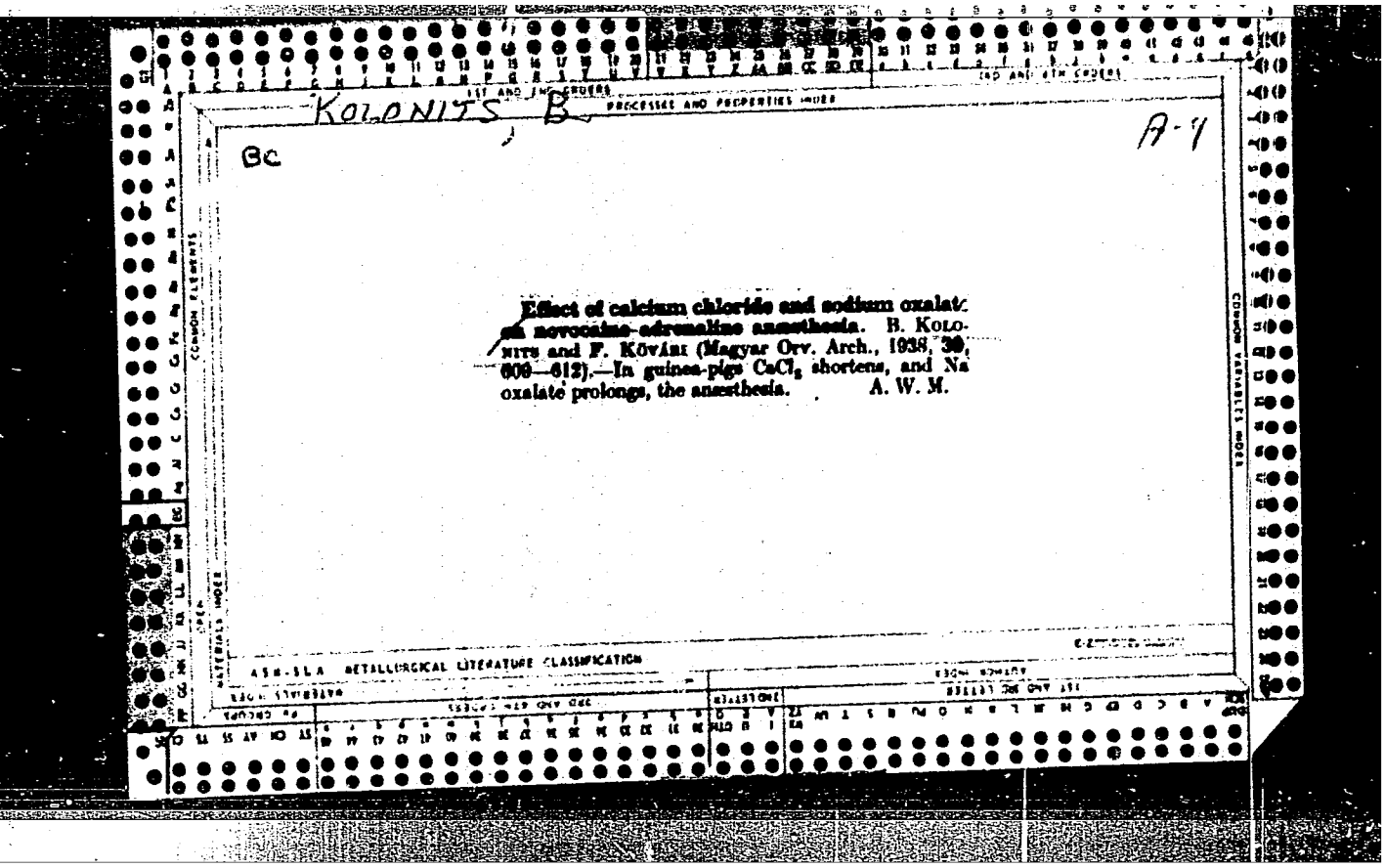
Card 1/1 UDC: none



KOLONITS, B

Effect of camphor on the adrenaline reaction. I. Blood pressure. J. Szelőcsey. *Magyar Orvosi Arch.* 36, 37-50(1935). II. Dilatation of pupil and increase of blood pressure. *Ibid.* 51-5. III. Permeability and adsorption. J. Szelőcsey and B. Kolonits. *Ibid.* 56-62. E. Barna

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



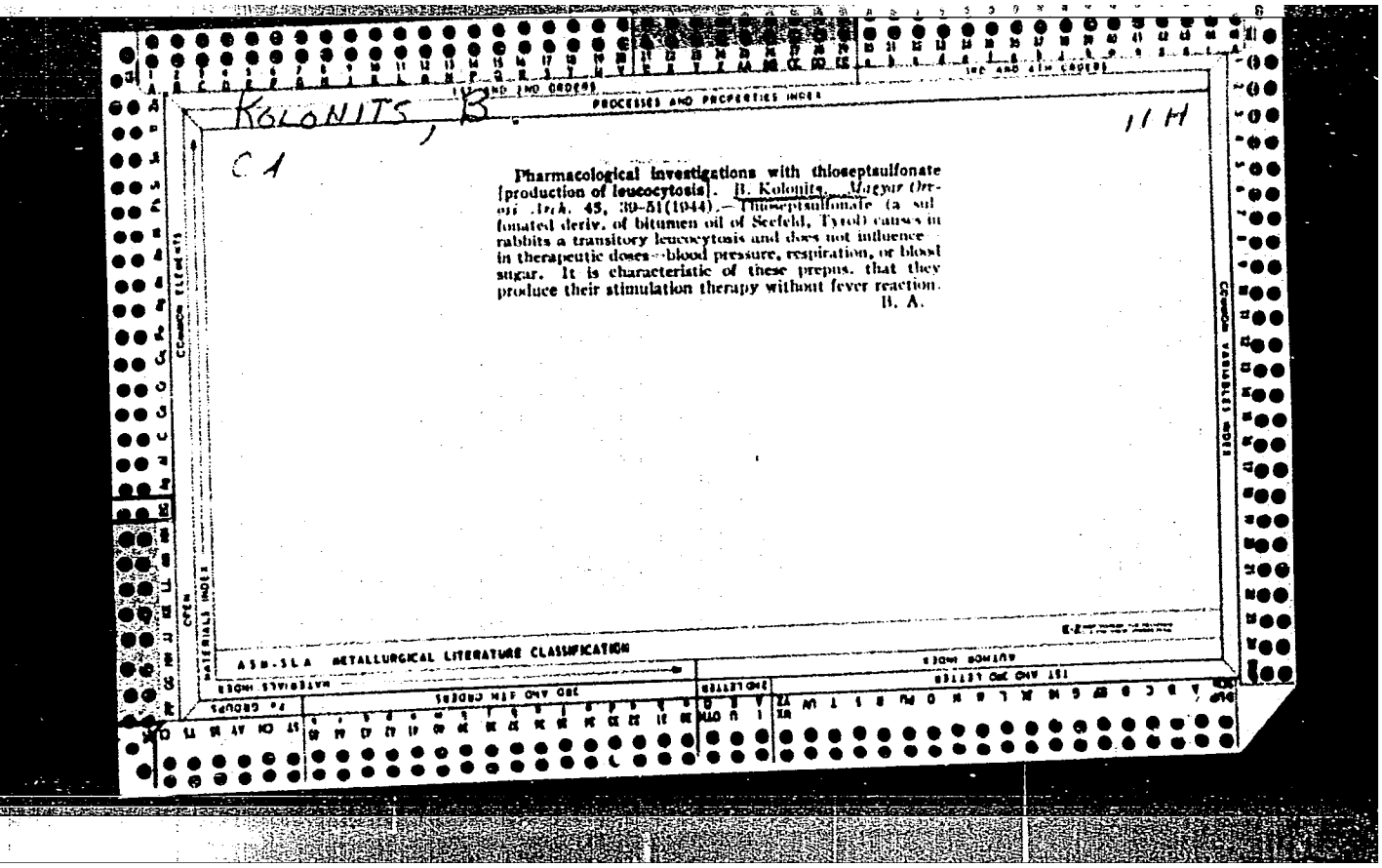
KOLONITS B

Bc

A-1

Effect of calcium chloride and sodium oxalate on novocaine-adrenaline anesthesia. B. Kolonits and F. Kövári (Magyar Orv. Arch., 1938, 39, 609—612).—In guinea-pigs $CaCl_2$ shortens, and Na oxalate prolongs, the anesthesia. A. W. M.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



KOLONITS, B.

C 1

11 H

Pharmacological investigations with thioseptsulfonate [production of leucocytosis]. B. Kolonits. *Magyar Orvosi Arch.* 45, 39-51(1944).—Thioseptsulfonate (a sulfonated deriv. of bitumen oil of Seefeld, Tyrol) causes in rabbits a transitory leucocytosis and does not influence in therapeutic doses—blood pressure, respiration, or blood sugar. It is characteristic of these preps. that they produce their stimulation therapy without fever reaction.
B. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KOLONITS, Jozsef, tudomanyos munkatars

Evetria control. Erdo 13 no.5:221-224 My '64.

1. Scientific Institute of Forestry, Eger.

BEKE, Denes [deceased]; HARSANYI, Kalman; KOLONITS, Pal

A new iso-quinoline ring closure reaction.VI. Magy kem folyoir 68 no.9:399-401 S '62.

1. Budapesti Muszaki Egyetem Szerves Kemiai Tanszeke.